

**Mud Lakes Area**

**Phase I Environmental Site Assessment**

**Prepared By: KBIC Natural Resources Department**



**Prepared For: KBIC**

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## Acronyms Used in the Report

AAI	All Appropriate Inquiry
AST	Above Ground Storage Tank
ASTM	American Society for Testing and Materials
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
EDR	Environmental Data Resources Inc.
ESA	Environmental Site Assessment
ERNS	Emergency Response Notification System
FEMA	Federal Emergency Management Agency
GIS	Geographic Information System
KBIC	Keweenaw Bay Indian Community
KBNRD	Keweenaw Bay Indian Community, Natural Resource Department
LUST	Leaking Underground Storage Tank
MDNR	Michigan Department of Natural Resources
MGDL	Michigan Geographic Data Library
NFRAP	No Further Remedial Action Planned
NPL	EPA National Priorities List
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
PCB	Polychlorinated Biphenyl
RCRA TDS	Resource Conservation and Recovery Act Treatment, Storage, and Disposal Facility
SSURGO	Soil Survey Geographic Database
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish & Wildlife Service
USGS	U.S. Geological Survey
UST	Underground Storage Tank
WRP	Wetlands Reserve Program



## **1.0 Executive Summary**

The Keweenaw Bay Natural Resources Department (KBNRD) performed a Phase I Environmental Site Assessment (ESA) on KBIC Trust Land property located west of US-41 and Mission Road. The property is referred to as Mud Lakes. The property described herein is located in Section 15, T51N, R33W, in the Township of Baraga, Baraga County, Michigan, and is hereafter referred to as the ‘subject property’.

This Phase I ESA was conducted in accordance with the American Society for Testing and Materials (ASTM) Standard E1527-05 entitled *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The purpose of this Phase I ESA is to identify, to the extent feasible, recognized environmental conditions (RECs) and historical RECs in connection with the subject property. The property in question is approximately 80 acres in size and encompasses the Mud Lakes wetland area, which is currently maintained as a natural resource area for KBIC.

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice 1527-05 of the subject property. Any exceptions to, or deletions from, this practice are described in Section 2.4 of this report. This assessment has revealed no evidence of RECs or historical RECs in connection with the subject property, with the exception of the following potential:

- A 55 gallon drum with unknown contents is partly submerged in a pond on the northeastern property boundary.
- A small dump site with what appears to be burn barrel ash and spilled and leaking containers of oil is located on the southeastern property boundary.
- Past history of illegal dumping and industrial equipment storage trespass has been documented. Most dumped items have been removed but still some remain. Burning of industrial waste may also have occurred at this same location
- Visual evidence suggests that contaminated soils may be present in the area of illegal dumping and industrial equipment storage trespass.
- Solid waste including household hazardous waste, petroleum products, and white goods is present on the southern portion of the property.

The Phase I concludes that de minimis conditions associated with the subject property are present, which addressed with the appropriate actions, should pose minimal or no impact to the environment.

- Solid waste, consisting of a tire, wooden pallet structure and other unidentified trash, was still present in a marsh pond located on the northeast portion of the subject property.
- Solid waste, including plastic sheeting and other building materials, scrap appliances, sofa, and other household trash was located on the southeastern boundary of the property.
- Solid waste, such as scrap tires, rusted 55-gallon drums, and household trash were scattered on the southern edge of the property.

## **2.0 Introduction**

### **2.1 Purpose**

The Keweenaw Bay Natural Resources Department (KBNRD), a division of the Keweenaw Bay Indian Community (KBIC) Tribal government, performed a Phase I ESA on KBIC Trust land (referred to as the ‘subject property’) located west of US-41 and Mission Road in Baraga Township, Baraga County, Michigan. The subject property is utilized as a natural resource area. Planned future use is as green space to be used by Tribal members as well as the general public.

The Phase I was conducted in accordance with the American Society for Testing and Materials (ASTM) Standard E1527-05 entitled *Standard Practice for environmental Site Assessments: Phase I Environmental Site Assessment Process*. The purpose of this Phase I was to identify, to the extent feasible, recognized environmental conditions (RECs) and historical RECs in connection with the subject property.

ASTM defines a recognized environmental condition (REC) as:

“the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with law. The term is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not recognized environmental conditions.”

The ASTM Standard E1527-05 defines a historical REC as an:

“Environmental condition which in the past would have been considered a recognized environmental condition, but may or may not be considered a recognized environmental condition currently.”

This assessment is intended to reduce, but not eliminate, environmental risk and potential liability associated with the subject property. It is not an exhaustive search of all potential environmental conditions at the subject property, but an informational tool that KBIC can utilize while assessing the fitness of the subject site for its intended use.

## **2.2 Detailed Scope of Services**

This Phase I ESA was completed by performing the following tasks:

- Site reconnaissance;
- Personal interviews with property owners, operators, occupants and/or others;
- Telephone conversations;
- Review of reasonably ascertainable federal, state, and local records;
- Review of information on file at KBNRD;
- A physical setting description;
- A request for and review of user provided information; and
- Evaluation of the collected data and preparation of a written report

The data collected and resources reviewed are discussed throughout the text of this report. No sampling or testing was performed during this Phase I ESA. Limitations and exceptions to this Phase I are described in Section 2.4 of this report. The following non-scope items defined in Section 13.1.5 of ASTM 1527-05 were not addressed as part of this Phase I ESA:

- Asbestos-Containing Building Materials
- Radon
- Lead-based paint
- Lead in Drinking Water
- Wetlands
- Regulatory compliance
- Cultural and historical resources
- Industrial hygiene
- Health and safety
- Ecological resources
- Endangered species
- Indoor air quality
- Biological agents
- Mold



## **2.3 Significant Assumptions**

Information collected for this assessment is assumed to be complete and accurate based upon researched informational sources. KBNRD assumes that this Phase I ESA will be read as a whole by the user.

## **2.4 Limitations and Exceptions of Assessment**

This phase I ESA was prepared to identify past and current uses of the subject property that may pose RECs to the subject property. Compliance with the recommendations and/or suggestions contained in this report in no way assures elimination of hazards or the fulfillment of a property owner's obligation under any local, state, or federal laws, or any modifications or changes thereto.

This Phase I ESA reflects conditions, operations, and practices as observed on the date of the site reconnaissance (July 16, 2007 and August 29, 2007). Changes or modifications to the subject property made after the site reconnaissance are not included.

This Phase I ESA was conducted in general accordance with the ASTM Standard E1527-05 and in a manner consistent with others performing Phase I ESAs under the same conditions and in the same locality. The following limiting conditions/data gaps were encountered as part of this Phase I ESA:

- KBNRD was not able to observe and investigate the entire property due to physical conditions limiting access. The subject property covers over 80 acres, much of which is open water or water saturated densely vegetated wetland which limits access.
- KBNRD did not request and was not supplied with a chain-of-title search as part of this Phase I ESA.

## **2.5 User Reliance**

The Phase I ESA is confidential and prepared for the benefit of the KBIC Tribal Council, the user, to fulfill all appropriate inquiry regarding knowledge of existing environmental conditions of the subject property prior to further investigation. KBNRD accepts no responsibility for application or interpretation of the results by anyone other than the user.

### **3.0 Site Description**

#### **3.1 Location and Legal Description**

The subject property is generally located in the western portion of the KBIC L'Anse Reservation north of the Village of Baraga, in close proximity to the western coast of the Keweenaw Bay. The property is bound to the east by Highway US-41 and Mission Road; to the north by a commercial business and wooded residential lots; to the west by undeveloped Tribal fee and allotted property; to the south by undeveloped KBIC Trust land in Baraga Township of Baraga County.

The legal description was provided by KBIC Realty, and is as follows:

*Part of Government Lot 1 of Section 15, Township 51 North, Range 33 West, Baraga Township, Baraga County, Michigan, lying West of Highway US-41 and that part of Government Lot 2 of Section 15, Township 51 North, Range 33 West, Baraga Township, Baraga County, Michigan, lying West of Highway US-41 and part of the Southwest Quarter of the Northwest Quarter of Section 15, Township 51 North, Range 33 West, Baraga Township, Baraga County, Michigan.*

A site location map of the subject property is included in Appendix A.

#### **3.2 Site and Vicinity General Characteristics**

The subject property is approximately 80 acres in size and is located wholly within the KBIC L'Anse Reservation boundaries. Based on KBNRD's observations the subject property is mostly a mix of low-lying wetland vegetation and open water connected by small streams. The western edge of the Keweenaw Bay of Lake Superior is across the highway from the subject property. The remaining land use surrounding the subject property is characterized as rural residential and forestland. Highway US-41 and Mission Road form the eastern boundary of the subject property; to the north by private rural residential properties and a metal fabricating shop; and to the west and south by undeveloped KBIC Tribal fee, allotted and Trust property.

### **3.3 Current Use of Subject Property**

The subject property currently exists as vacant land and is used as a natural resource area for the KBIC.

### **3.4 Descriptions of Structures, Roads, and Other Site Improvements**

Currently, there is an unpaved access road on the northeastern portion of the subject property. A “No Dumping Allowed” sign is present on the northeastern property border. A gate exists close to the access road entrance off of Mission Road. The main portion of the road extends to the northeastern edge of the subject property, while part of the road curves to end in a wood wildlife platform and floating dock that are in poor condition. A USGS water testing station was set up at Mud Lakes and is reportedly still present near the wildlife platform. Additionally, a small gravel drive off Mission Road is found on the subject property leading to one of the southern Mud Lakes. Also of note, is a water control structure that was installed at the Mud Lakes outlet utilizing USDA - Natural Resource Conservation Service (NRCS) Wetlands Reserve Program funding in 1999. The water control structure is located off-site on railroad right-of-way and was constructed to help regulate water levels in the Mud Lakes for maintaining wild rice and waterfowl habitat. The following information was obtained from the KBNRD 1999 Waterfowl Index Report by NRD Natural Resources Specialist:

In 1998, a contractor installed a culvert and added some fill to a ditch in the access road; 2) an entrance gate was also placed on the access road; 3) a 12 foot high observation tower was built on a high stretch between eastern and western lakes; and 4) several beaver dams were removed at the outlet of Mud Lakes.

In 1999, the following projects were completed: 1) an access road was made to outlet; 2) a water control structure was installed at the outlet; 3) several beaver were trapped out; and 4) water level was lowered in all lakes.

### **3.5 Current Uses of Adjacent Properties.**

KBNRD observed, to the extent feasible due to site limitations (sec. 2.4), adjacent properties for potential environmental impacts to the subject property. Observations were made from the subject property, roads, and other areas open to public access, as appropriate. Surrounding uses were also investigated through aerial photos, 2006 Baraga County Plat Book, GIS data displayed on ArcMap and interviews with knowledgeable persons. In general surrounding properties

consist mainly of forestland and semi-wooded private property. An inactive railroad line also runs through the northeastern portion of the subject property and through eastern adjacent properties. The subject property's surrounding land uses include:

North: VanStraten Brothers Inc.-metal fabricating shop, single-family residence, private wooded property and small tract wooded lots.

Northeast: Highway US-41, residential lots, and State-owned beach property.

East: Mission Road (Old US-41) and Marquette Catholic Diocese property.

Southeast: Mission Road and Marquette Catholic Diocese property.

South: Undeveloped KBIC Trust property.

Southwest: Undeveloped KBIC Trust property.

West: Undeveloped Tribal fee and allotted property.

Northwest: KBIC Commercial Forest Reserve property.

## **4.0 User Provided Information**

### **4.1 Title Records**

KBNRD did not request and was not provided with title record information by KBIC, and a title record search was not performed. The property is KBIC trust land.

### **4.2 Environmental Liens or Activity and Use Limitations**

KBNRD was not provided with any additional information regarding liens or limitations against the subject property or surrounding properties by the KBIC.

### **4.3 Specialized Knowledge**

The KBIC Realty Office provided the KBNRD with legal description and ownership type information for the subject property (Appendix B). Illegal dumping has occurred on the subject property in the past and has been documented in aerial photographs, digital photographs, correspondence, memorandum and site visit report.

#### **4.4 Commonly Known or Reasonably Ascertainable Information**

KBNRD has correspondence on file sent to adjoining property owner, VanStraten Brothers, Inc., regarding the implementation of a Wetlands Reserve Program project and illegal dumping of scrap metal, heavy machinery and other various items. In addition, a memorandum and record of site visit report further describes the effects of illegal trespass on the subject property. These documents are all included in Appendix C. According to staff at KBNRD, many of the dumped items mentioned in the correspondence were subsequently cleaned up but some items currently remain as of the site visits on July 16 and August 29, 2007. Site soils and water may have been impacted by dumping and equipment storage.

#### **4.5 Owner, Property Manager, and Occupant Information**

The subject property has been held in Trust by the United States for the KBIC since December 27, 1985. The contacts for the property are: KBIC Representative, Jason A. Ayres/Realty Officer and USDI BIA Representative, Michigan Agency, Esther Thompson/Realty Officer. The property is currently an unoccupied natural resource area.

#### **4.6 Reason for Performing Phase I**

KBNRD completed a Phase I ESA to satisfy U.S. EPA All Appropriate Inquiry requirements to determine, to the extent feasible, the potential for the past or current presence of petroleum products and hazardous materials at the subject property or other RECs and historical RECs in connection with the subject property, as well as inquiries consistent with good commercial and customary practice. KBNRD also completed the Phase I ESA to identify potential environmental issues that could materially impact the future development of the subject property as greenspace for the KBIC and general public.

#### **4.7 Previous Environmental Assessments**

KBNRD is not aware of any previous environmental assessments completed for the subject property. The KBNRD did perform an initial site assessment on July 30, 2003 which was documented in a memorandum and report titled: record of site visit (Appendix C). Also, a Water-Resources Investigations Report documented the sampling and results of water and sediment for the "Assinins Wetland" in 1991 (Appendix F).

## **5.0 Records Review**

### **5.1 Standard Environmental Record Sources**

KBNRD located existing information pertaining to the subject site and surrounding areas on publicly available federal and state databases, primarily via the Internet, the results of which are presented in Appendix D. The information was reviewed by the KBNRD to identify sites that pose RECs to the subject property. The databases reviewed were most recently available as of August 14, 2007. The database sources and distances searched include the following:

**Table 1. Environmental Database Search Results Summary**

<b>Database</b>	<b>Minimum Search Distance</b>	<b>Number of Reported Sites Within Search Distance</b>
<b>Federal Records</b>		
EPA Envirofacts	1.0	0
National Priority List, NPL, De-listed NPL, and Proposed NPL	1.0	0
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) List	0.5	0
CERCLIS No Further Remediation Action Planned (NFRAP) List	0.5	0
Resource Conservation Recovery Act (RCRA) Corrective Action Report (CORRACTS) list	1.0	0
RCRA Treatment, storage, and Disposal (TSD) list	0.5	0
RCRA Hazardous Waste Generator List	0.25	0
Emergency Response Notification System (ERNS)	Subject Property Only	0
Toxic Release Inventory (TRI) list	Subject Property Only	0
Former Used Defense Sites (FUDS)	1.0	0
US Brownfields list	0.5	0
EPA Cleanups list	1.0	0

<b>Database</b>	<b>Minimum Search Distance</b>	<b>Number of Reported Sites Within Search Distance</b>
<b>Federal Records</b>		
Water Discharge Permits (PCS) list	1.0	0
Enforcement and Compliance History Online (ECHO) list	1.0	0
Air Releases (AIR/AFS)	1.0	0
<b>State Records</b>		
State Solid Waste Disposal Sites	0.5	0
Michigan Part 201 Site list	1.0	0
State Leaking Underground Storage Tank (LUST) list	0.5	0
State Underground Storage Tank (UST) list	0.25	0
State Above Ground Storage Tank (AST) list	0.25	0
Pollution Emergency Alerting System (PEAS)	Subject Property Only	0

KBNRD reviewed the environmental database search results to ascertain how many sites of known or potential environmental concern are located within the specified ASTM minimum search distance. Sites listed within the database search were reviewed with respect to the applicable search radii, regulation status, distance, topography, and gradient with respect to the subject property. There were zero sites identified within the search radii that are considered to present potential environmental impacts to the subject property.

## **5.2 Physical Setting**

Various sources of information contributed to determining the physical setting of the subject property. The sources include: files found at KBNRD, information reviewed online and processed through ArcView GIS software, and information obtained from site visits. The sources are summarized in Table 2 and attached in Appendices E - J.

**Table 2. Physical Setting Sources**

<b>Data Type</b>	<b>Source</b>	<b>Appendix</b>
USGS 7.5 Minute Series Topographic Map, L'Anse Quadrangle, last edited 1985	MGDL	E
Water Resources of the KBIC, Baraga County, Michigan	KBNRD files	F
National Wetland Inventory Data	USFWS website	G
MDEQ Coastal Zone Boundary data	MGDL	H
USDA SSURGO Soil Type data	MGDL	I
USDA Soil Survey of Baraga County	KBNRD files	I
Aerial Photographs: 1938, 1955, 1968, 1991 1995, 2001	KBNRD files	J

### **5.2.1 Geologic, Hydrogeologic, Hydrologic, and Topographic Conditions.**

The USGS 7.5 Minute Series Topographic Map, L'Anse Quadrangle, edited 1985, shows the subject property to be low-lying wetland to gently sloping terrain generally situated at an elevation of 190 meters above mean sea level (Appendix E). The terrain surrounding the subject property to the north, south and west gently rises to 250 meters above mean sea level. The topography and visual observations of the Mud Lakes Area shows that surface water is generally to the east into the Keweenaw Bay of Lake Superior which is across highway 41 from the subject property. Groundwater flows in the same direction and is illustrated in the report, Water Resources of the Keweenaw Bay Indian Community, Baraga County, Michigan (Appendix F).

The U.S. Fish and Wildlife Service NWI data characterizes the Mud Lakes wetland on the subject property as Palustrine (Appendix G). Palustrine wetlands are generally described as: nontidal wetlands dominated by trees, shrubs, or persistent emergent vegetation or small shallow wetlands. The subject property is partly located within the MDEQ designated Coastal Zone (Appendix H), however, it is not identified within a Special Flood Hazard Area on the most current FEMA Flood Maps.

Soils data was obtained from the USDA SSURGO data and Soil Survey of Baraga County (Appendix I). The majority of the soils occurring adjacent and west of the Mud Lakes (33-Histosols and Aquents, 20-Carbondale and Tacoosh mucks) are those associated with wetlands being described as nearly level and very poorly drained, most often found along streams, lakes, swamps and depressions. The remaining soil types around the western boundary of the subject



property range from nearly level to gently sloping with somewhat poor to moderately well drainage. Soils occurring on the eastern boundary of the subject property (14B-Rubicon Sand) are described as hilly and steep and excessively drained.

### **5.2.2 Roads**

Entrance to the northeastern portion of the subject property is just west of the intersection of Mission Road (Old US-41) and Highway US-41. A gate exists a short distance north of the entrance. The road runs generally southeast to northwest and is connected to the adjoining commercial property's unpaved road. Three-quarters of the distance north, this road connects to a dirt road circling west then south to a wooden wildlife platform and floating dock. A small sand and gravel drive off Mission Road is found on the subject property leading to one of the southern Mud Lakes. A crumbling paved drive is found farther south off Mission Road leading to what probably was a residence. A grown-over road leading north to the southern reach of the subject property and old dump sites is accessed off of the gated section of St. Arnold Road.

### **5.2.3 Potable Water Supplies and Sewage Disposal System**

The subject property does not have potable water supplies or a sewage disposal system in place.

## **5.3 Historical Use Information on the Subject Property**

Historical use information of the subject property was determined by KBNRD using interviews, and reviewing historical aerial photographs, historical gathering sites map and through site visits. There was no coverage of the subject property on EDR Sanborn fire insurance map search or street directory search.

While aerial photo review shows the subject property to be vacant land; the area has undergone various uses and disturbances (Table 3). The subject property was identified as a traditional gathering site for cranberry on a map created through interviews of tribal elders. An interview with a Baraga County Historical Museum volunteer points to the current Highway US-41 being constructed between 1936 to 1938 and could account for the disturbance on the subject property noted in 1938 aerial photos. In 1991, the subject property was evaluated as a potential site for

fish farming. The sampling and results of the evaluation were included in a U.S. Geological Survey Water-Resources Investigations Report (Appendix F). In 1998 and 1999 a contractor completed various projects for the KBIC on the subject property such as installation of a culvert, placing fill, building a viewing platform, establishing a road access to the Mud Lakes outlet, etc. (noted in Section 3.4). An aerial photograph dated 2001 shows scattered piles and a trailer on the subject property. Correspondence and reports in Appendix C describe the illegal trespass, dumping and equipment storage issues on the property.

### **Aerial Photographs Summary**

The following is a chronological history of the subject property according to aerial photographs dated 1938, 1954, 1968, 1991, and 2001 (Appendix J).

**Table 3. Aerial Photographs Summary**

<b>Year</b>	<b>Scale</b>	<b>Features</b>
1938	Unknown	The subject property shows disturbance along the eastern boundary in what appears as roads and a gravel/sand pit area and two “lakes” are west of the disturbed area. The railroad line runs through the far northeast section of the property. Surrounding land use consists of forest, farmland and residential.
1954-55	Unknown	The subject property shows little change except for more lakes east and north of those described in the 1938 photo. More forest has grown back into the surrounding area.
1968	Unknown	The subject property has less open water than the 1954 photo and a clearing appears with roads south of the lakes. Two buildings and a round clearing with roads are now present northeast of the subject property. More forest has grown back to the south.
1991	Unknown	Areas on the subject property where there was clearing in the 1968 photo now appear as ‘lakes’. The round clearing to the northeast is also now water. Additional structures are present on the adjoining property. Surrounding land use remains much the same: forest, patches of cleared land and residential.
2001	Unknown	A floating dock with connecting road is now visible on the subject property along with scattered piles and what appears to be a trailer. A new building and more clearing is present next to the round lake on adjoining property. A few more residences are visible on the surrounding area south.

## **5.4 Historical Use Information on Adjoining Properties**

As mentioned previously, a street directory was not available for the subject property or surrounding area. Research of historical adjoining land use relied primarily on the abovementioned aerial photographs, along with site visits.

In the 1938 and 1954-55 aerial photographs the adjoining properties appear as forestland, cleared land, or farmland. The cleared land/farmland is most visible south and west of the subject property, off of the St. Arnold Road loop. In the 1968 aerial photograph a building (the current location of VanStraten Bros. Inc.) and round-shaped clearing appears in the northeast and a residence is visible across the highway. The 1991 aerial photographs show much of the cleared land/farmland to the south and west reverting back to forestland. Additional structures have been added to the VanStraten Bros. property to the northeast with a residence barely discernable through the trees to the south and the round-shaped clearing is now filled with water. More residential appears north along Lake Superior and south off Mission Road in the 1995 photograph. In 2001 a building and scattered piles appear alongside the pond to the northeast. Another residence appears to the south off Mission Road. Highway US-41, Mission Road (Old US-41), railroad line, and the cemetery appear in all the aerial photographs.

## **6.0 Site Reconnaissance**

### **6.1 Methodology and Limiting Conditions**

KBNRD inspected the site during site visits on July 16, 2007 and August 29, 2007 in order to identify RECs and historical RECs. Adjoining properties were also observed on July 16, 2007 from the subject property, roadways, and other areas open to public access. The subject property is held in Trust for the KBIC; therefore, there were no restrictions to property access. The KBNRD was unable to inspect the entire subject property due physical conditions: the properties large size (80+ acres), dense wetland vegetation and open water which limited access.

### **6.2 General Site Setting**

The site reconnaissance of the subject property was conducted by KBNRD on July 16, 2007 and August 29, 2007. The weather during both site visits was sunny, clear, and very warm. KBNRD

observed the subject property for features usually associated with potential environmental impairment including: electrical transformers, USTs, ASTs, chemical/waste storage, generation, and management practices; pesticide/herbicide application practices. Photographs from the site reconnaissance are included in Appendix K.

### **6.3 Subject Property Observations**

The subject property is comprised of over 80 acres of low-lying wetland terrain part of which are the Mud Lakes. The “lakes” are located along the eastern boundary of the subject property. The only built structures on the subject property are the wildlife viewing platform and floating dock located in the northeast. An unimproved road is also located in the northeast giving access to the viewing platform, dock, and adjoining property. A partly submerged drum along with a scrap tire, building material and other debris are visible in the northeastern “lake”. It is not known on whether there are hazardous materials or petroleum products present in the drum. No oily sheen, odor or stressed vegetation was observed on or around the water where the above mentioned items were dumped. A “No Dumping Allowed” sign is present at the estimated northern property boundary. Small pieces of debris are scattered on the ground around this sign showing evidence of past dumping. Another “No Dumping Allowed” sign is present on the southeast side of the subject property off Mission Road and a crumbling paved drive is found just north of this sign. The driveway leads down to an open area with scattered small pieces of roofing material, scrap metal, and other small debris showing evidence of past dumping. Following an old pathway southwest of the paved drive are two small dump sites: the first small dump encountered consisted mainly of plastic bottles, plastic sheeting and building materials while the other dump site had the remains of a sofa recliner, large rusted metal appliance, ashes with metal and glass mixed in, and various metal and plastic containers on their side leaking oil into the ground. There was a noticeable strong odor, soil staining, and stressed vegetation observed at this dump site. An unimproved road leads to the scattered debris of what was assumed to be an old residential dump on the southern reach of the subject property. The dumped items were a mix of white goods (washer, dryer, etc.) and other household items, scrap tires, children’s toys, rusted-through drums and other scrap metal. It was evident that some of the debris was buried and there was soil mounding in and around the site. There was no evidence of strong odors, soil staining or stressed vegetation. The dumped items were found under a canopy of pines.

#### **6.4 Indications of Polychlorinated Biphenyls**

There was no equipment present on the subject property at the time of the site visits that would likely contain PCB's such as electrical equipment, transformers, or capacitors. Illegal equipment storage has taken place on the subject property in the past and it is not known whether the equipment contained PCB's.

#### **6.5 Indications of Solid Waste Disposal**

The subject property is a vacant resource area therefore does not generate solid waste. However, there were indications of illegal solid waste dumping along the northeast, eastern and southern portion of the subject property. Debris such as a partly submerged drum, scrap tire and building material were observed in the northeastern "lake". Signs reading "No Dumping Allowed" are located on the estimated northern property boundary and the eastern boundary off Mission Road. Evidence of household debris was found at the end of a crumbling paved drive off Mission Road. Small dump sites were observed southwest of the paved drive and contained building materials, household items, ashes, and various plastic and metal containers leaking oil. The debris from what is assumed to be an old residential dump was scattered under a forest of pines on the southern edge of the subject property. Additional small scattered trash was observed along the northeast, eastern and southern boundary.

## **7.0 Interviews**

### **7.1 Interview with Owner**

The subject property is held in Trust by the United States for the KBIC.

### **7.2 Interview with Occupant**

The subject property is unoccupied therefore no interviews were conducted with the occupant.

### **7.3 Interviews with Others**

KBNRD Director discussed past visual observations of soil staining and disturbance found at the subject property.

KBNRD spoke with Ms. Eva Miron/Baraga County Historical Museum Volunteer regarding the construction of Highway US-41. A 1938 aerial photograph appears to show US-41 construction and disturbance to the subject property. Eva related that she graduated in the year 1936 and to her knowledge; US-41 was not yet constructed. She moved downstate for several years and upon returning in 1938, the Highway US-41 was built.

KBNRD interviewed NRD Natural Resources Specialist, Evelyn Ravindran, upon suggestion of Mr. Todd Warner/Natural Resources Director, regarding location of a water control structure on the subject property. Ms. Ravindran related that the water control structure was constructed utilizing the NRCS Wetland Reserve Program to improve the subject property for rice planting. The water control structure was built off the subject property using railroad right-of-way to access the stream outlet. Ms. Ravindran sent an email relating the information contained in the 1999 Waterfowl Index Report about the NRCS WRP grant along with information of past suspicions of contamination on the subject property (Appendix L).

## **8.0 Findings and Opinion**

### **8.1 Findings**

The following chronological history of the subject property was developed by KBNRD from interviews, review of VanStraten Brothers Inc. letter, historical aerial photographs and topographic maps.

From 1938 to 1998 the subject property has remained undeveloped and existed as vacant land. In 1998 and 1999, according to KBNRD staff interviews and reports, contractors completed an installation of a culvert, placing fill, building a viewing platform, establishing a road access to the Mud Lakes outlet, etc. For purposes of ASTM Standard 1527-05, section 8.3.2 (Uses of the Property) defines the term “developed use” to include agricultural uses and placement of fill dirt. An aerial photo dated 2001 shows scattered piles and a trailer on the subject property and adjoining property. Correspondence, dated August 16 and November 22, 2002, documents issues with illegal trespass and storage on the subject property. A July 30, 2003 site visit report, photos, and associated memorandum also documents the illegal trespass and storage. Photo documentation tracks discovered dump sites over time on the subject property in 2003, 2005, 2006 and 2007.

Based upon our review of reasonably ascertainable historical resources, KBNRD was unable to assess the subject property prior to 1938.

KBNRD’s review of reasonably ascertainable information revealed the following environmental conditions in connection with the subject property:

- History of illegal dumping and equipment storage on the subject property is evidenced through aerial and digital photographs and correspondence to VanStraten Brothers, Inc. Digital photos and site visits show that not all dumped materials have been cleaned up. Soils in the area of equipment storage and dumping trespass may have been impacted. A partly submerged drum and building materials were noted in the pond on the northeastern portion of the subject property.
- Digital photos documenting other scattered dump sites on the subject property, starting with earliest known dated photos in 2003 then in 2005, 2006, and 2007. One small dump

site had leaking and spilled containers of oil with associated soil staining and strong oil odor.

## **8.2 Data Gaps**

A data gap is considered the lack of or inability to obtain information required by ASTM E1527-05 despite good faith efforts by KBNRD to gather such information. A data gap by itself is not significant. The following data gaps were identified during performance of this Phase I ESA. The significance of each data gap is discussed below as well as data failures, if any.

- KBNRD was unable to observe the entire ground surface of the subject property due to physical conditions: properties large size (80+ acres), dense wetland vegetation, and open water.
- KBNRD was unable to obtain historical use information from prior to 1938.
- KBNRD was not supplied with a chain-of-title search nor did KBNRD request one as part of this Phase I ESA.
- KBNRD was unable to assess the use/occupancy of the subject property prior to 1938.

## **8.3 Opinions**

It is the opinion of KBNRD that the partly submerged drum may potentially be a REC to the subject property. Drum contents are unknown. Also, one small dump site located on the southeastern portion of the subject property is potentially a REC due to dumped burn barrel ash containing metal and other debris and various metal and plastic containers with spilled or leaking oil onto the ground.

It is the opinion of KBNRD that the past illegal dumping and former equipment storage pose a historical REC to the subject property. An interview with KBNRD staff revealed that potentially impacted soils have been observed on the property. Aerial and digital photos and correspondence to VanStraten Brothers, Inc. give evidence to the illegal dumping. Site visits and digital photographs confirm much debris and equipment has



since been cleaned up but some materials still remain on the estimated property boundary.

It is the opinion of KBNRD that the dumped materials still present in the marsh pond on the northeastern portion of the subject property likely do not pose RECs to the property; that the small dump site with construction debris and household waste on the southeast portion of the subject property do not pose RECs to the property; that the old residential dump site on the southern edge of the subject property does not pose RECs to the property; but are instead de minimis conditions which addressed with the appropriate action should pose little or no impact to the environment. There were no uses identified that use, treat, or dispose of hazardous materials or petroleum products. No hazardous materials or petroleum products were observed except at the site on the subject property noted above.

KBNRD has no information to suggest that by eliminating the above-listed data gaps through reviews of documentation that is not reasonably ascertainable, additional RECs and/or historical RECs would be identified with respect to the subject property with the exception: KBNRD can not rule out the possibility of finding RECs or historical RECs for portions of the subject property that were not accessible due to physically limiting conditions.

## **9.0 Conclusions**

The Keweenaw Bay Indian Community Natural Resource Department has completed a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E1527 of: the Mud Lakes Area, which is referred to in this report as the subject property.

Acting upon the following recommendations regarding potential RECs, historical RECs and de minimis conditions is left to the discretion of KBIC.

This assessment has revealed potential evidence of recognized environmental conditions (RECs) in connection with the property. The content of a partly submerged drum is unknown. The drum should be removed from the pond and, if intact, the contents tested and then the drum disposed of properly. The small dump site with burn barrel ash and spilled and leaking oil containers poses a REC due to contamination of surface and/or groundwater. The burn barrel ash and leaking oil containers should be removed and properly disposed of. We recommend the above areas be further investigated through sampling and analysis of soil and water.

This assessment has revealed potential evidence of historical RECs in connection with the property. Past dumping of debris and former equipment storage poses a historical REC to the subject property. It is not known on whether this historical REC could be considered a REC to the subject property, however, further investigation is warranted. KBNRD makes the following recommendations with respect to additional historical REC conditions at the subject property:

- Take appropriate action with remaining equipment and dumped materials still present on the estimated boundary of the subject property.

This assessment has revealed evidence of de minimis conditions in connection with the subject property. KBNRD makes the following recommendations with respect to de minimis conditions permitting sufficient funding can be secured:

- Remove and properly dispose of submerged materials in the pond next to adjoining northeast property.

- Remove and properly dispose of building materials, household trash, scrap metal, and furniture at the small dump sites located along the southeastern boundary of the subject property.
- Remove and properly dispose of appliances, scrap tires, rusted drums, old paint cans and other household trash located along the southern edge of the subject property.

## **10.0 Environmental Professional Statement**

This report was prepared by Jennifer Romstad, Brownfield Assessment Coordinator, within the KBNRD. Jennifer has served in this capacity for approximately 12 months. Jennifer has earned a Bachelor of Science degree in Environmental Science from Northern Michigan University.

This report was reviewed by Todd Warner, KBNRD Director. Todd has earned a Bachelor of Arts degree from Macalester College (St. Paul, MN), and a Master of Science degree from the University of Canterbury, Christchurch, New Zealand. Todd has worked in environmental science for approximately twelve years, 11 of them doing environmental consulting work for various firms in the Midwest, and has experience conducting site investigations, including Phase I, Phase II and property cleanup.

We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Qualifications are available on file at KBNRD.

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 312.

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**Todd Warner, KBNRD Director**

## **Appendix A**

### **Mud Lakes Area Site Map**

**Appendix B**  
**Legal Description**

## **Appendix C**

**Letters to VanStraten Brothers, Inc.;  
Record of Site Visit and Memorandum**

## **Appendix D**

### **Environmental Database Search**



**Appendix E**  
**Topographic Map**

## **Appendix F**

**Excerpt from report:  
Water Resources of the Keweenaw Bay Indian Community,  
Baraga County, Michigan**

**Appendix G**  
**National Wetland Inventory**

**Appendix H**  
**MDEQ Coastal Zone**

## **Appendix I**

**USDA SSURGO Soil Type Map/  
USDA Soil Survey of Baraga County**

**Appendix J**  
**Aerial Photographs**

**Appendix K**  
**Site Photographs**

## **Appendix L**

### **Email Communication**